

# ARNOLD ARBORETUM

## HARVARD UNIVERSITY



### BULLETIN

OF

### POPULAR INFORMATION

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**Rhododendrons.** The flowering of the principal Rhododendrons in the collection is very late this year but the plants are in an unusually good condition and many varieties will be in bloom this week. Persons who desire to cultivate these plants must remember that Rhododendrons, including all Azaleas, cannot live in soil impregnated with lime. Rhododendrons are not hardy north of Massachusetts, and south of Pennsylvania the summer sun is too hot for them. The range therefore in eastern North America where these plants can be successfully cultivated is comparatively small, but probably the northwest coast of North America from southern British Columbia to northern California is as well suited for these plants as any part of the world, and there can be grown in addition to all the varieties common in European gardens the Himalayan and Chinese species which here in the east can only be kept alive in glass houses, and in Europe thrive only in a few exceptionally favorable places like Cornwall or in the neighborhood of the Italian lakes.

Rhododendrons, although they are moisture-loving plants, do not thrive in undrained positions; they do best in soil in which loam and peat have been equally mixed, although peat is not always essential to the successful cultivation of these plants. They should be planted where the roots of trees cannot take away moisture from them, and the best position for these plants is on the north side but not too near coniferous trees, as they are planted in the Arboretum. In such positions they are protected from the direct rays of the sun in March and April, for in this climate where the roots are in frozen ground in winter and therefore cannot take up moisture, it is important to reduce as much as possible winter and early spring evaporation from the leaves. It is this evaporation from the leaves of evergreens growing

in frozen soil which makes it impossible to keep alive many of them in this country; and this is the reason why it is desirable here to water thoroughly *Rhododendrons* just before the ground freezes in the autumn. *Rhododendrons* imported from Europe suffer here from the stock on which they have been grafted. The almost universal custom among European nurserymen is to use *Rhododendron ponticum* as the stock for these plants because it is easily and quickly raised and readily grafted. *R. ponticum* is not at all hardy here, and there is little doubt that our want of success with *Rhododendrons* imported from Europe is due, in part at least, to the stock on which they have been grafted and that the gradual or sudden death here of large plants which have been uninjured by cold or drought for twenty or thirty years is due to this cause.

The familiar *Rhododendrons* of New England gardens are so-called Catawbiense Hybrids and were raised in Europe many years ago by crossing *R. catawbiense*, a native of the highest summits of the Appalachian Mountains, with Himalayan species, notably the scarlet-flowered *R. arboreum*. It might be expected that plants obtained from these crosses would be hardy in proportion to the predominance of the American plant but, judging by the color of the flowers, this is not always true. Varieties like *Atrosanguineum*, *Charles Dickens* and *H. W. Sargent*, which have flowers as bright red as those of *R. arboreum*, are among the hardiest of all garden *Rhododendrons*; but varieties with white or pale flowers are more tender than those with rose pink or purple flowers which most closely show the influence of the *Catawbiense* parent; and unfortunately the varieties with light-colored flowers marked at the base with large brown or chocolate-colored blotches, like *Sapho*, are not at all hardy here.

The hardiness of these hybrid *Rhododendrons* can only be determined by trial, although in selecting varieties for trial it is safe to assume that plants with broad leaves resembling those of *R. catawbiense*, like *Everestianum*, *Mrs. C. S. Sargent*, *Roseum elegans*, *Henrietta Sargent*, *Catawbiense album*, and all the varieties with light or dark purple flowers are likely to prove hardier than the plants with narrow leaves like *Mrs. John Chitton*. There are, of course, exceptions to such a rule. For example, *Pink Pearl* has broad leaves and is very tender; and *Gomer Waterer*, although it has leaves as broad as those of any of these hybrids, usually suffers in winter and almost invariably loses its flower-buds.

Persons who want to plant *Catawbiense Hybrid Rhododendrons* should take advantage of the knowledge which has been laboriously and expensively obtained about these plants at Wellesley on Mr. Hunnewell's estate, where *Rhododendrons* have been tested on a large scale for sixty years, and here at the Arboretum where many of the hardiest kinds raised in England, Germany, and the United States will now soon be in flower.

There are other evergreen *Rhododendrons* which are not as often cultivated here in Massachusetts as they might be. *R. catawbiense* itself is perfectly hardy and none of its hybrids have handsomer foliage. It grows slowly, however, and never to a very large size, and the flowers are of a disagreeable purple rose color.

*Rhododendron maximum*, which grows naturally as far north as southern New Hampshire, is a large plant sometimes treelike in habit,



with handsome, long, narrow leaves and small clusters of beautiful pink and white flowers. It is the last of the *Rhododendrons* to bloom here, and the flower-buds do not open until the new branchlets have nearly finished their growth, so that the flower-clusters are a good deal hidden by them.

The varieties and hybrids of the dwarf *Rhododendron caucasicum* bloom before the *Catawbiense* Hybrids, and the flowers have already faded. The latest of this race to flower, and perhaps the best of them all here, is a low, broad, compact plant with pure white flowers called *Boule de Neige*. This is a perfectly hardy, free-flowering plant which might to advantage be more generally planted in Massachusetts.

*Rhododendron carolinianum*. Another year increases our admiration for this native of the slopes of the southern Appalachian Mountains which is the handsomest of the small *Rhododendrons* in the Arboretum collection. It is perfectly hardy, the habit is excellent, and the leaves are very dark green above and rusty below. It flourishes in the full sun or in deep shade, and never fails to produce abundant crops of its clusters of pale rose-pink flowers. This is one of the best of the broad-leaved evergreens recently introduced into our gardens.

*Rhododendron Smirnowii* is a plant with which Americans interested in the cultivation of *Rhododendrons* would do well to become acquainted, for it is not only a beautiful plant but may prove exceedingly valuable in the production of a new race of hybrid *Rhododendrons* better suited for this climate than any which we now have. It is a native of the Caucasus and a large shrub with pale gray-green leaves coated below with a thick mat of pale felt, and large pink or rose-pink flowers in medium-sized clusters. The leaves are not as handsome as those of *R. catawbiense* and its hybrids, and when the plants are fully exposed to the sun the leaves sometimes curl up in very hot weather. The felt on their lower surface, however, protects them from the attacks of the lace-leaf fly from which other *Rhododendrons* suffer so seriously here. By crossing this *Rhododendron* with *R. catawbiense* or with some of the hardiest of its hybrids it may be possible to obtain plants superior to any now in our gardens. A Japanese species,

*Rhododendron brachycarpum*, may also prove valuable for crossing with *R. Smirnowii* or *R. catawbiense*. This is a species of the high mountains of Japan, with large, dark green leaves and large clusters of very pale yellow flowers; it is an exceedingly rare plant in western gardens and does not appear to have been much cultivated by the Japanese. It was one of the plants brought from Japan in 1862 by Mr. Gordon Dexter of Boston and it grew to a large size and flowered for many years in Francis Parkman's garden in Jamaica Plain. This specimen was later transferred to the Arboretum and is no longer alive. There are now seedling plants here, and there is no reason why this handsome species should not become common in American gardens.

**Chinese Cotoneasters.** All the deciduous-leaved species of Chinese *Cotoneasters* have come through the winter without injury, and many of them are now covered with flowers. As a flowering plant *C. hupehensis* is perhaps the most beautiful, and of all the shrubs introduced by Wilson from China it is the handsomest or one of the handsomest when in flower. It is a broad, tall shrub with very slender arching branches which are now so covered with flowers that at a distance it



looks more like a *Spiraea* than a *Cotoneaster*. The flowers are white, in small clusters which stand up well above the leaves. The fruit is bright red and lustrous, but it has not yet been produced here very profusely and as it is a good deal hidden by the leaves this species is not as showy in the autumn as several of the others. *C. nitens* and *C. divaricata* are covered with their small bright red flowers which make them attractive at this season of the year. They are large and vigorous shrubs with arching stems and dark green and very lustrous leaves; the former has reddish black fruit and *C. divaricata*, which is the larger plant of the two has bright red fruit. All the plants in this group are good garden plants in this climate, and among them are some of the most valuable additions which have been made in recent years to the New England garden flora. The largest specimens of the Chinese *Cotoneasters* are among the other Chinese shrubs on the southern slope of Bussey Hill; many of them are also in the general Shrub Collection and on Hickory Path near Centre Street.

***Xanthoceras sorbifolia*.** This handsome Chinese shrub or small tree has flowered unusually well in the Shrub Collection this year. It has dark green leaves and erect and spreading racemes of white flowers marked with red at the base of the petals, and fruit like that of a Buckeye. This interesting plant is related to the so-called Texas Buckeye, *Ungnadia*, and to *Koeleruteria*, the yellow-flowered Chinese tree which blooms here at midsummer. *Xanthoceras*, of which there is but a single species, is not new in gardens. It is very hardy but has a way of dying without any apparent cause, and for this reason it is not as often cultivated as it might be for when it flowers as it has here this year few shrubs are more beautiful.

***Symplocos paniculata*,** or as it is often called, *S. crataegoides*, is a native of Japan, China and the Himalayas. The form which is cultivated here is Japanese, and is a tall, broad shrub, with large, obovate, dark green deciduous leaves, small white flowers in abundant, compact panicles which open after the leaves are nearly full grown and are followed in the autumn by bright blue fruits about one-third of an inch in diameter. Although the plants are attractive when in bloom, the fruit of a color unusual among that of hardy shrubs is the most interesting thing about it. There are large plants now in flower in the general Shrub Collection and on the side of the Bussey Hill Road just above the Lilacs. Apparently this shrub does not flourish in soil impregnated with lime, at least it has been found impossible to make it live in Rochester, New York.

The cold and rainy season has so delayed the blooming of early flowering plants like Lilacs, which were three weeks later than usual, that trees and shrubs whose flowering periods are normally several weeks apart are now in bloom together, and probably there has never been a time when so many different flowers could be seen here at once as are open this week. Azaleas, Rhododendrons, Wisterias, Viburnums, Cornels, Laburnums, American Crabapples, Hawthorns, Roses, Diervillas, Dipeltas, Syringas, Horsechestnuts, Buckeyes, Maples, Barberries, Siberian Pea-trees, Aronias, Robinias, Mountain Ashes, and *Cotoneasters* are a few of the genera represented by many species which are now covered with flowers in the Arboretum.